

## A NEW GENUS OF THE ARALIACEAE

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ON THE ISLAND OF TAIWAN (FORMOSA), there is an anomalous species of the family Araliaceae known as *Oreopanax formosana* Hayata. *Oreopanax* is otherwise an exclusively tropical American genus. Upon careful study of the ample number of specimens preserved in Formosan herbaria, I have come to the conclusion that a different genus is represented. Not being able to refer it to any existing genus, I propose a new genus under the name *Sinopanax*, in recognition of its geographical location.

The specimens cited below are those preserved in the Herbarium of the National Taiwan University except *Wilson 9734*, which is deposited in the herbarium of the Arnold Arboretum.

*Sinopanax*, gen. nov.

Arbuscula vel frutex, ramis cinereo-stellato-tomentosis vel adpresse pilosis inermibus. Folia ampla simpla longe petiolata, petiolis basi dilatatis, stipulis parum prominulis ad basin petiolorum connatis, laminis late orbicularibus obsolete 3-5-lobatis vel grosse irregulariter dentatis, subtus stellato-tomentoso et piloso dense obtectis. Inflorescentia ampla corymboso-paniculata terminalia laxa erecta aperta, ramis alternis angulo obtuso divaricatis. Florum capitula sublobata, capitulis florum pedunculatis remote instructis, bracteolae florum sub singulo flore 3-nae, 1 subtendente majore, 2 lateralibus minoribus oppositis. Calyx margine minute dentatus, basi exarticulatus. Petala 5, aestivatione valvata, caducissima. Stamina 5, filamentis brevissimis; discus explanatus. Ovarium 2-loculare, loculis 1-ovulatis, stylis 2 brevibus liberis erectis, stigmatibus terminalibus. Fructus late globosi, abortu 1-spermi drupacei, stylis persistentibus valde recurvis. Semina ovoideo subtriquetra, albuminibus ruminatis.

TYPE SPECIES: *Oreopanax formosana* Hayata.

One species, Taiwan (Formosa), China.

*Sinopanax formosana* (Hayata), comb. nov.

*Oreopanax formosana* Hayata, Fl. Mont. Form. 108, pl. 14. 1908, Icon. Pl. Form. 2: 61. 1912, Gen. Ind. Fl. Form. 33. 1916; Kanehira, Form. Trees 280. 1917, rev. ed. 524, f. 484. 1936; Nakai in Jour. Arnold Arb. 5: 19. 1924; Masamune, Short Fl. Form. 155. 1936.

CHINA: Taiwan: Kao-hsiung, Chi-shan, *Suzuki-Tokio 20930*; Akohuzi, *E. Matuda 1404*; Karenko, Nankotaizan, *Suzuki-Tokio, N. Fukuyama, & H. Shimida 17547*; Hannoki, Heito, *S. Suzuki 11127*; Arisan, Usyuoko, *S. Suzuki s. n.*; Ako, Mt. Buwi, *S. Sasaki s. n.*; Arisan, *E. H. Wilson 9734* (Arnold Arboretum).

A small tree or shrub, in dry sunny places, on landslides or in open forests at high altitudes of over 2000 meters. Endemic.

For *Oreopanax formosana*, Hayata originally cited five collections: *N. Konishi 34A*; *G. Nakahara s. n.*; *T. Kawakami & U. Mori 1709*,



1871, and 1914. Among these, three are represented by duplicates in the Herbarium of the Forestry Institute of Taiwan and carry the herbarium numbers as follows: *Kawakami & Mori 18506*, *Mori 18505*, and *Konishi 18511*. These have also been seen.

*Oreopanax* is an araliaceous genus of the tropics of the western hemisphere. Two species have been credited to eastern Asia, the only records of the genus outside America. One of them, *Oreopanax chinense* Dunn (Jour. Linn. Soc. Bot. 35: 500. 1906) is a species with digitately compound leaves, described from southern Yunnan. It belongs to the group of species of *Schefflera* with capitate flowers and is now known as *Schefflera chinensis* (Dunn) Li (Sargentia 2: 17. 1942). Another species, *Oreopanax formosana* Hayata, a species with simple irregularly and shallowly lobed leaves and described from Formosa, seems to represent a distinct genus. The occurrence of *O. formosana* Hayata in Formosa has often been referred to as a very anomalous case of distribution in the flora of the island, the species being the only representative of the otherwise exclusively tropical American genus. This view thus needs revision.

This Formosan species, here designated as representing the type of a distinct genus, *Sinopanax*, resembles *Oreopanax* in the simple leaves, sessile and capitate flowers, ruminant endosperm, and the presence of three bracts under each flower. However, there are some fundamental differences between the two. The ovary of *Oreopanax* is generally 5-celled, and the flowers are polygamo-dioecious or more rarely polygamo-monoecious. In this Formosan plant the ovary is 2-celled and the flowers are hermaphroditic. There are two styles, and these are so extremely short that the stigmas can actually be called sessile. In *Oreopanax* the style is rather long and bears a flat stigma.

This new genus of Formosa seems to be related to, but evidently not congeneric with *Schefflera*. The species of *Schefflera* have hermaphroditic flowers. Occasionally simple palmately lobed leaves and capitate flowers characterize some of its species. *Schefflera*, however, differs from the Formosan plant in having a 5–7-celled ovary and uniform or very rarely slightly ruminant endosperm. The relationship of this Formosan genus is probably closer to *Brassaiopsis* than to *Schefflera*. In *Brassaiopsis* the ovary is 2-celled, the leaves are either palmately lobed or digitately compound, and the endosperm is either ruminant or uniform. But in *Brassaiopsis* the flowers are polygamous and not capitate, and the two styles, either long or short, are distinctly united. *Sinopanax* is also distinct from both *Schefflera* and *Brassaiopsis* in the presence of three small bracts, one larger than the other two, under each flower.

It thus seems that this Formosan plant is not acceptable to *Oreopanax*, *Schefflera*, or *Brassaiopsis*. Nor can it be assigned, to the knowledge of the writer, to any other tropical Asiatic genus of the family. In order to ascertain its phylogenetic and geographic significance, it is thought best to designate a separate genus for its accommodation.

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